



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

mf

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/791,458

03/01/2004

Sundar G. Sankaran

15685P215

3465

45222 7590 02/08/2007
ARRAYCOMM/BLAKELY
12400 WILSHIRE BLVD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1030

EXAMINER

HO, HUY C

ART UNIT

PAPER NUMBER

2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

02/08/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/791,458

Applicant(s)

SANKARAN ET AL.

Examiner

Huy C. Ho

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. **Claims 1, 6-9, 11-12, 14, 17, 25 and 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Zehavi (6,185,199)** and further in view of **Garcia, JR. et al. (2005/0073945)**.

Consider claim 1, Zehavi teaches a method performed by a first radio, the method comprising:
receiving data from a data source to be communicated to a remote radio (see the abstract, fig 1, col 5 lines 10-30);

Zehavi does not disclose featuring of randomizing the received data using an identifier related to the remote radio, however Zehavi describes the randomized data provided to the scrambler which spreads the data with the long PN code assigned to a remote station (fig 7, col 5 lines 54-65, col 7 lines 55-67, col 9 lines 32-47, col 11 lines 52-67, col 12 lines 1-11). In an analogous art, Garcia teaches randomizing the received data using an identifier related to the remote radio (see pars [35] and [44]). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify and incorporate Garcia teachings into Zehavi invention in order to have the feature of randomizing the received data using an identifier related to the remote radio.

Consider claim 7, Zehavi, as modified by Garcia, teaches a method for randomizing data to be sent from a base station of a wireless radio network to a user terminal accessing the wireless radio network, the method comprising:

generating an initialization vector using an identifier associated with the user terminal (see pars [12]-[13], [30], [34]-[35]).

seeding a scrambling sequence generator with the initialization vector (see the abstract, pars [12]-[17], [28], [30], [34]-[35]); and

randomizing the data using the scrambling sequence generator (see the abstract, pars [12]-[17], [28], [30], [31], [34]-[35]).

Consider claim 12, Zehavi, as modified by Garcia, teaches an initialization vector to be used to initialize a randomizer of a first radio communicating with a remote radio, the initialization vector comprising:

an identifier associated with the remote radio (pars [30]-[32], [35]).

Consider claim 17, Zehavi, as modified by Garcia, teaches a method for randomizing data to be sent from a user terminal to a base station of a wireless radio network, the method comprising:

generating an initialization vector using an identifier associated with the base station (see pars [12]-[13], [30], [34]-[35]);

seeding a scrambling sequence generator with the initialization vector (see the abstract, pars [12]-[17], [28], [30], [34]-[35]);

randomizing the data using the scrambling sequence generator (see the abstract, pars [12]-[17], [28], [30]-[31], [34]-[35]).

Consider claim 25, Zehavi, as modified by Garcia, further teaches a communications device comprising:

a data source containing data to be transmitted to a remote radio (see the abstract, fig 1, col 5 lines 10-30); and

teaches a randomizer to scramble the data using an identifier related to the remote radio (see pars [30], [35] and [44]).

Consider claim 6, The method of claim 1, Zehavi, as modified by Garcia, teaches wherein randomizing the received data comprises:

generating a scrambling sequence using at least part of the identifier as at least a part of an initialization vector, and combining the received data with the scrambling sequence (see fig 2, pars [12]-[13], [30]-[31], [34]-[35]).

Consider claim 8, The method of claim 7, Zehavi, as modified by Garcia, teaches wherein the identifier is associated with a connection between the user terminal and the base station ([30]-[32] and [35]).

Consider claim 9, The method of claim 8, Zehavi, as modified by Garcia, teaches wherein the connection comprises a session ([30]-[32] and [35]).

Consider claim 11, The method of claim 7, Zehavi, as modified by Garcia, teaches wherein generating the initialization vector further comprises using a frame number ([16], [35], [50]).

Consider claim 30, The communications device of claim 25, Zehavi, as modified by Garcia, teaches wherein randomizer scrambles the received data by generating a scrambling sequence using at least part of the identifier as at least a part of an initialization vector, and combining the received data with the scrambling sequence (see the abstract, pars [12]-[17], [28], [30]-[31], [34]-[35]).

Consider claim 14, Zehavi, as modified by Garcia, teaches The initialization vector of claim 12, comprising a frame number ([16], [35], [50]).

6. Claims 2-5, 10, 13, 15-16, 18-21, 22-24, 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zehavi (6,185,199), in view of Garcia, JR. et al. (2005/0073945), and further in view of Padovani et al. (2007/0019608).

Consider claim 22, Zehavi, as modified by Garcia, teaches a method performed by a base station comprising:

descrambling a second signal from a user terminal using the first information, the second signal carrying a second information (pars [15]-[16], [33], [48]-[52]);

randomizing a third signal using the second information (pars [33], [48]-[53]);

Zehavi, in view as modified by Garcia, fails to teaches broadcasting a first signal carrying a first information, however, Zehavi teaches the wireless communication system of base stations and mobile

Art Unit: 2617

stations wherein multiple mobile stations communicate with at least a base station and the base station transmits identical signals over multiple sectors of a cell (see col 2 lines 10-50). In an analogous art, Padovani teaches broadcasting a first signal carrying the first information (pars [120], [135]). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify and incorporate Padovani teachings into Zehavi, modified by Garcia invention in order to have the feature of broadcasting a first signal carrying a first information.

Consider claim 2, The method of **claim 1**, Zehavi, modified by Garcia, and further modified by Padovani, teaches wherein the first radio comprises a user terminal, the remote radio comprises a base station, and the identifier comprises a base station color code (see pars [37]-[38], [55], [71], [73], [88], [110], [111], [114], [119], [120], [141], [148], [152]-[154]).

Consider claim 3, The method of **claim 1**, Zehavi, modified by Garcia, and further modified by Padovani, teaches wherein the first radio comprises a base station, the remote radio comprises a user terminal, and the identifier comprises a user terminal identifier (UTID) (see pars [37]-[38], [55], [71], [73], [88], [110], [111], [114], [119], [120], [141], [148], [152]-[154]).

Consider claim 4, The method of **claim 1**, Zehavi, modified by Garcia, and further modified by Padovani, teaches wherein the first radio comprises a base station, the remote radio comprises a user terminal, and the identifier comprises a connection identifier (CID) associated with the user terminal (see pars [37]-[38], [55], [71], [73], [88], [110], [111], [114], [119], [120], [141], [148], [152]-[154]).

Consider claim 5, The method of **claim 1**, Zehavi, modified by Garcia, and further modified by Padovani, teaches wherein the first radio comprises a base station, the remote radio comprises a user terminal, and the identifier comprises a registration identifier (RID) associated with the user terminal (see pars [37]-[38], [55], [71], [73], [88], [110], [111], [114], [119], [120], [141], [148], [152]-[154]).

Consider claim 10, The method of **claim 7**, Zehavi, modified by Garcia, and further modified by Padovani teaches wherein generating the initialization vector further comprises using a second identifier

associated with the base station (see pars [37]-[38], [55], [71], [73], [88], [110], [111], [114], [119], [120], [141], [148], [152]-[154]).

Consider claim 13, Zehavi, modified by Garcia, and further modified by Padovani, teaches The initialization vector of claim 12, further comprising a second identifier associated with the first radio (see pars [37]-[38], [55], [71], [73], [88], [110], [111], [114], [119], [120], [141], [148], [152]-[154]).

Consider claim 15, The initialization vector of claim 12, Zehavi, modified by Garcia, and further modified by Padovani teaches wherein the first radio comprises a base station, the remote radio comprises a user terminal, and the identifier comprises one of a user terminal ID (UTID), connection ID (CID), registration ID (RID), session ID ((see pars [37]-[38], [55], [71], [73], [88], [110], [111], [114], [119], [120], [141], [148], [152]-[154]).

Consider claim 16, The initialization vector of claim 12, Zehavi, modified by Garcia, and further modified by Padovani teaches wherein the first radio comprises a base station, the remote radio comprises a user terminal, and the second identifier comprises one of a base station ID (BSID), base station color code (BSCC) ((see pars [37]-[38], [55], [71], [73], [88], [110], [111], [114], [119], [120], [141], [148], [152]-[154]).

Consider claim 18, The method of claim 17, Zehavi, modified by Garcia, and further modified by Padovani teaches wherein generating the initialization vector further comprises using a second identifier associated with the user terminal/base station pair (see pars [37]-[38], [55], [71], [73], [88], [110], [111], [114], [119], [120], [141], [148], [152]-[154]).

Consider claim 19, The method of claim 18, Zehavi, modified by Garcia, and further modified by Padovani teaches wherein the second identifier is associated with a connection between the user terminal and the base station (see pars [37]-[38], [55], [71], [73], [88], [110], [111], [114], [119], [120], [141], [148], [152]-[154]).

Consider claim 20, The method of **claim 19**, wherein the connection comprises a session (see pars [37]-[38], [55], [71], [73], [88], [110], [111], [114], [119], [120], [141], [148], [152]-[154]).

Consider claim 21, The method of **claim 17**, Zehavi, modified by Garcia, and further modified by Padovani teaches wherein generating the initialization vector further comprises using a frame number ((see pars [37]-[38], [55], [71], [73], [88], [110], [111], [114], [119], [120], [141], [148], [152]-[154]).

Consider claim 23, The method of **claim 22**, Zehavi, modified by Garcia, and further modified by Padovani teaches wherein randomizing the third signal further comprises using the first information ((see pars [37]-[38], [55], [71], [73], [88], [110], [111], [114], [119], [120], [141], [148], [152]-[154]).

Consider claim 24, The method of **claim 22**, Zehavi, modified by Garcia, and further modified by Padovani teaches wherein the first signal comprises a broadcast burst and the first information comprises a base station color code (BSCC) (see pars [37]-[38], [55], [71], [73], [88], [110], [111], [114], [119], [120], [141], [148], [152]-[154]).

Consider claim 26, The communications device of **claim 25**, Zehavi, modified by Garcia, and further modified by Padovani teaches wherein the communications device comprises a user terminal, the remote radio comprises a base station, and the identifier comprises a base station color code ((see pars [37]-[38], [55], [71], [73], [88], [110], [111], [114], [119], [120], [141], [148], [152]-[154]).

Consider claim 27, The communications device of **claim 25**, Zehavi, modified by Garcia, and further modified by Padovani teaches wherein the communications device comprises a base station, the remote radio comprises a user terminal, and the identifier comprises a user terminal identifier (UTID) (see pars [37]-[38], [55], [71], [73], [88], [110], [111], [114], [119], [120], [141], [148], [152]-[154]).

Consider claim 28, The communications device of **claim 25**, Zehavi, modified by Garcia, and further modified by Padovani teaches wherein the communications device comprises a base station, the remote radio comprises a user terminal, and the identifier comprises a connection identifier (CID)

associated with the user terminal (see pars [37]-[38], [55], [71], [73], [88], [110], [111], [114], [119], [120], [141], [148], [152]-[154]).

Consider claim 29, The communications device of claim 25, Zehavi, modified by Garcia, and further modified by Padovani teaches wherein the communications device comprises a base station, the remote radio comprises a user terminal, and the identifier comprises a registration identifier (RID) associated with the user terminal (see pars [37]-[38], [55], [71], [73], [88], [110], [111], [114], [119], [120], [141], [148], [152]-[154]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huy C. Ho whose telephone number is (571) 270-1108. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EDAN ORGAD
PRIMARY PATENT EXAMINER

Edan Orgad 2/3/07